

- 1 No, the sample is biased towards students who use the internet, because of the email collection method.
- 2 No, the sample is biased because she is collecting the data at a particular time of day. Some age groups would be more likely to use the restaurant at that time – probably school children and ‘young’ families.
- 3 No, the sample is biased towards viewers of that station. Only people with strong opinions will call, and people may call more than once.
- 4 Answers will vary
- 5 a 0.48
b \hat{p} , This is a sample proportion, because it was determined from a sample.
- 6 a The population is all students at this school.
b The population proportion is the proportion of students in the whole school who travel by public transport, 0.42.
c The sample proportion is the proportion of students in the sample who travel by public transport, 0.37.
- 7 a The population is all Australian adults.
b The population mean is the mean number of hours that Australian adults watch TV per day = 4 hours.
c The sample mean is the mean number of hours that the Australian adults in the sample watch TV per day = 3.5 hours.